

Data File : VU031507.D
Acq On : 25 Apr 2019 18:29
Operator : JC/SP
Sample : VSTDIC001
Misc : 25.0mL/MSVOA_U/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_U
ClientSampleId :
VSTDIC001

Quant Time: Apr 26 04:33:03 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\524U042619DW.M
Quant Title : METHOD 524.2 VOLATILES DRINKING WATER
QLast Update : Fri Apr 26 04:23:17 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.74	96	67255	1.00	ug/l	0.00

System Monitoring Compounds

57) 4-Bromofluorobenzene	10.31	95	23889	1.03	ug/l	0.00
Spiked Amount 1.000			Recovery	=	103.00%	
68) 1,2-Dichlorobenzene-d4	11.86	152	22918	1.05	ug/l	0.00
Spiked Amount 1.000			Recovery	=	105.00%	

Target Compounds

					Qvalue
2) Dichlorodifluoromethane	1.21	85	34325	1.144 ug/l	99
3) Chloromethane	1.32	50	40856	1.142 ug/l	98
4) Vinyl Chloride	1.40	62	38520	1.137 ug/l	89
5) Bromomethane	1.63	94	18548	1.112 ug/l	99
6) Chloroethane	1.70	64	21712	1.132 ug/l	98
7) Trichlorofluoromethane	1.89	101	45431	1.175 ug/l	93
8) 1,1,2-Trichloro-1,2,2-trif	2.29	101	22674	1.162 ug/l	96
9) 1,1-Dichloroethene	2.28	96	21253	1.097 ug/l	98
10) Iodomethane	2.41	142	20731	0.988 ug/l	99
11) Allyl Chloride	2.59	41	46161	1.105 ug/l	96
12) Acrylonitrile	2.94	53	13696	2.362 ug/l	99
13) Acetone	2.33	43	31201	5.814 ug/l	97
14) Carbon Disulfide	2.48	76	82022	1.114 ug/l	98
15) Methylene Chloride	2.70	84	28334	1.151 ug/l	97
16) trans-1,2-Dichloroethene	2.98	96	24034	1.105 ug/l	82
17) 1,1-Dichloroethane	3.44	63	48270	1.090 ug/l	99
18) 2-Butanone	4.29	43	36312	5.251 ug/l	100
19) Cyclohexane	4.98	56	29358	0.859 ug/l #	84
20) Methylcyclohexane	6.41	83	26334	0.957 ug/l	91
21) 2,2-Dichloropropane	4.22	77	36071	1.118 ug/l	98
22) cis-1,2-Dichloroethene	4.22	96	24497	1.081 ug/l	97
23) Diethyl Ether	2.11	59	20660	1.119 ug/l	97
24) tert-Butyl Alcohol	2.86	59	20433	10.708 ug/l	100
25) Methyl tert-Butyl Ether	3.00	73	60938	1.095 ug/l	98
26) Bromochloromethane	4.55	128	10479	1.084 ug/l	89
27) Chloroform	4.67	83	45667	1.095 ug/l	98
28) 1,1,1-Trichloroethane	4.91	97	40128	1.163 ug/l	96
29) 1,1-Dichloropropene	5.13	75	29566	1.053 ug/l	98
30) Carbon Tetrachloride	5.13	117	35165	1.186 ug/l	94
31) Isopropyl Ether	3.58	45	69223	1.044 ug/l	93
32) Ethyl-t-butyl ether	4.07	59	56037	1.033 ug/l	98
33) Tert-Amyl methyl ether	5.58	73	40660	0.943 ug/l #	96
34) Propionitrile	4.36	54	8554	4.860 ug/l #	68
35) Benzene	5.39	78	89832	1.039 ug/l	99
36) 1,2-Dichloroethane	5.41	62	31742	1.151 ug/l	99
37) Trichloroethene	6.19	130	23376	1.091 ug/l	99
38) 1,2-Dichloropropane	6.43	63	25159	1.044 ug/l	100
39) Methacrylonitrile	4.56	41	7937	1.025 ug/l	92
40) Methyl acrylate	4.45	55	8986	1.052 ug/l #	78
41) Tetrahydrofuran	4.66	42	8667	2.063 ug/l	95
42) 1-Chlorobutane	5.06	56	42680	0.995 ug/l	99

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Quant Title : METHOD 524.2 VOLATILES DRINKING WATER
QLast Update : Fri Apr 26 04:23:17 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Dibromomethane	6.56	93	12962	1.106	ug/l	98
44) Bromodichloromethane	6.76	83	32815	1.100	ug/l	100
45) 4-Methyl-2-Pentanone	7.47	43	68555	4.841	ug/l	94
46) t-1,4-Dichloro-2-butene	10.49	75	12996	2.905	ug/l #	74
47) Methyl methacrylate	6.63	69	16955	1.813	ug/l	99
48) Ethyl methacrylate	8.02	69	14823	1.132	ug/l	92
49) Toluene	7.64	92	44415	0.998	ug/l	100
50) t-1,3-Dichloropropene	7.88	75	22875	0.992	ug/l	100
51) cis-1,3-Dichloropropene	7.27	75	29334	1.015	ug/l	95
52) 1,1,2-Trichloroethane	8.07	97	17511	1.119	ug/l	94
53) 1,3-Dichloropropane	8.24	76	28479	1.057	ug/l	97
54) 2-Hexanone	8.37	43	46681	4.924	ug/l	88
55) Dibromochloromethane	8.48	129	18828	1.078	ug/l	97
56) 1,2-Dibromoethane	8.59	107	14537	1.055	ug/l	100
58) Tetrachloroethene	8.22	164	22564	1.101	ug/l	91
59) Chlorobenzene	9.12	112	46865	1.010	ug/l	99
60) 1,1,1,2-Tetrachloroethane	9.21	131	18994	1.017	ug/l	98
61) Pentachloroethane	11.10	117	14075	1.098	ug/l	93
62) Hexachloroethane	12.14	117	13222	1.031	ug/l	99
63) Ethyl Benzene	9.25	91	71543	0.927	ug/l	95
64) m/p-Xylenes	9.37	106	51391	1.784	ug/l	99
65) o-Xylene	9.78	106	27214	0.961	ug/l	92
66) Styrene	9.79	104	40377	1.023	ug/l	97
67) Bromoform	9.96	173	10329	1.058	ug/l	95
69) Isopropylbenzene	10.16	105	68983	0.943	ug/l	98
70) 1,1,2,2-Tetrachloroethane	10.46	83	22328	1.113	ug/l	95
71) 1,2,3-Trichloropropane	10.49	75	12996	0.909	ug/l #	90
72) Bromobenzene	10.45	156	19091	1.014	ug/l	96
73) n-propylbenzene	10.58	120	16404	0.994	ug/l	84
74) 2-Chlorotoluene	10.66	126	17763	0.973	ug/l	95
75) 1,3,5-Trimethylbenzene	10.77	105	54227	0.959	ug/l	95
76) 4-Chlorotoluene	10.77	126	15319	0.906	ug/l	84
77) tert-Butylbenzene	11.10	119	56365	0.961	ug/l	97
78) 1,2,4-Trimethylbenzene	11.15	105	53236	0.937	ug/l	99
79) sec-Butylbenzene	11.32	105	75649	0.994	ug/l	97
80) Nitrobenzene	12.84	77	139	0.285	ug/l #	44
81) p-Isopropyltoluene	11.47	119	55411	1.009	ug/l	100
82) 1,3-Dichlorobenzene	11.42	146	37615	1.020	ug/l	97
83) 1,4-Dichlorobenzene	11.51	146	34030	0.967	ug/l	96
84) n-Butylbenzene	11.89	91	54249	1.073	ug/l	98
85) 1,2-Dichlorobenzene	11.88	146	34930	1.008	ug/l	94
86) 1,2-Dibromo-3-Chloropropan	12.66	75	3027	1.095	ug/l #	84
87) 1,2,4-Trichlorobenzene	13.51	180	14958	0.829	ug/l	95
88) Hexachlorobutadiene	13.69	225	13997	1.076	ug/l	98
89) Naphthalene	13.75	128	24215	1.186	ug/l	96
90) 1,2,3-Trichlorobenzene	13.99	180	15850	1.009	ug/l #	89

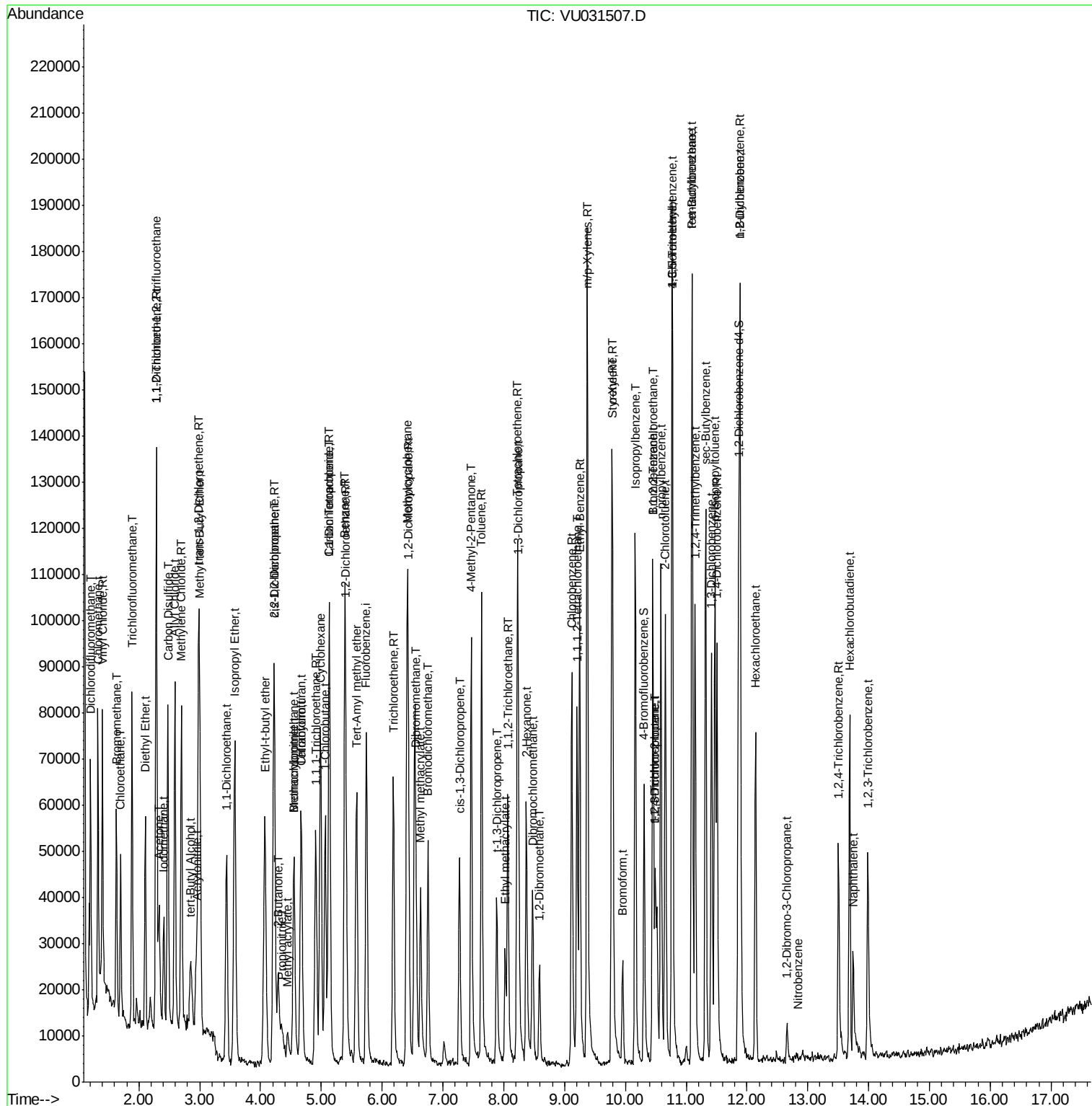
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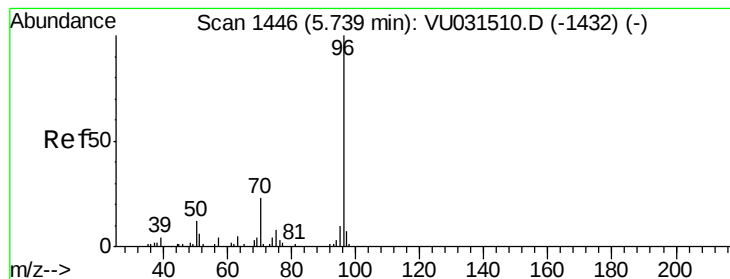
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```
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MSVOA_U
ClientSampleId :
VSTDICC001

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#1

Fluorobenzene

Concen: 1.000 ug/l

RT: 5.74 min Scan# 1446

Delta R.T. -0.00 min

Lab File: VU031507.D

Acq: 25 Apr 2019 18:29

Instrument :

MSVOA_U

ClientSampleId :

VSTDIC001

Tgt Ion: 96 Resp: 67255

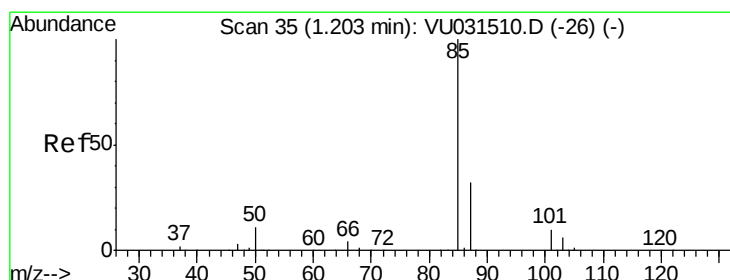
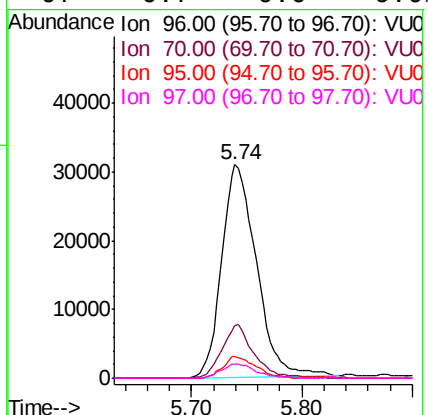
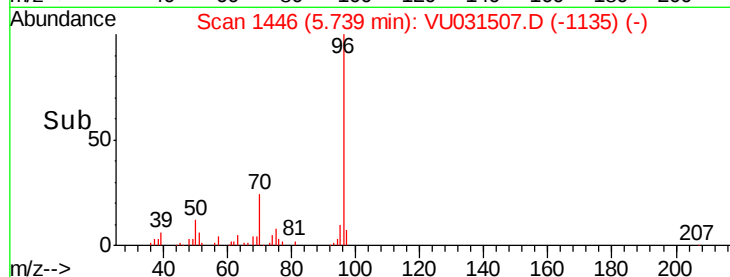
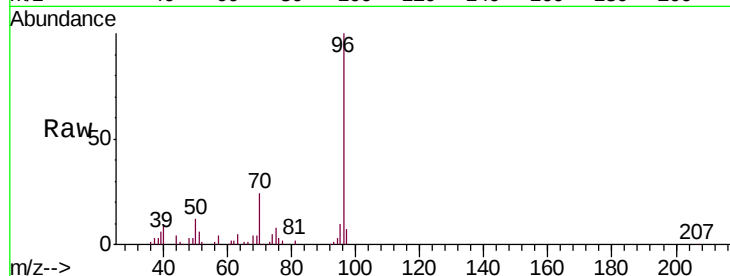
Ion Ratio Lower Upper

96 100

70 23.3 18.2 27.2

95 9.8 7.7 11.5

97 6.7 0.0 0.0#



#2

Dichlorodifluoromethane

Concen: 1.144 ug/l

RT: 1.21 min Scan# 36

Delta R.T. 0.00 min

Lab File: VU031507.D

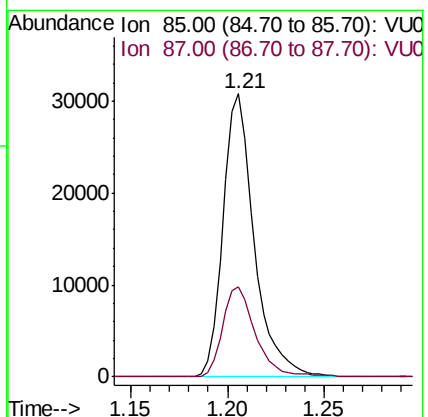
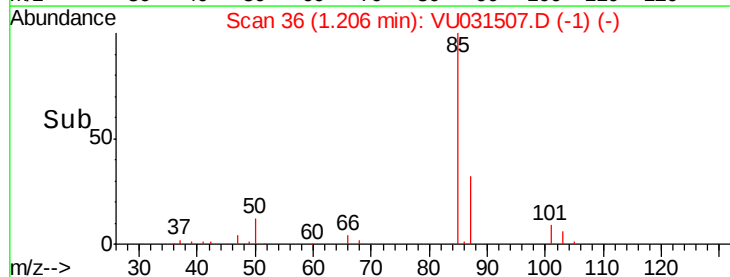
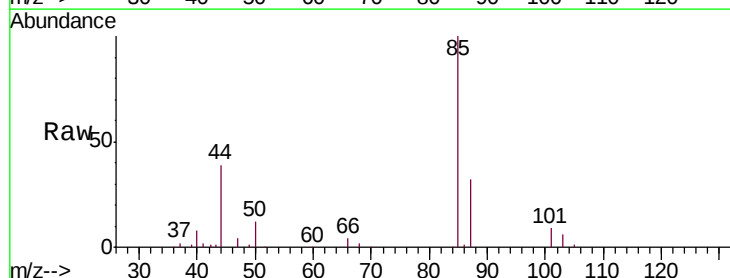
Acq: 25 Apr 2019 18:29

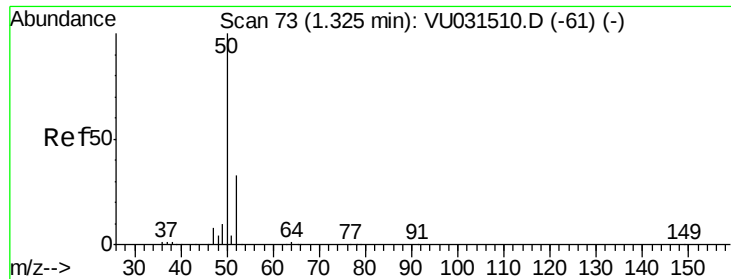
Tgt Ion: 85 Resp: 34325

Ion Ratio Lower Upper

85 100

87 31.8 16.1 48.2





#3

Chloromethane

Concen: 1.142 ug/l

RT: 1.32 min Scan# 73

Delta R.T. -0.00 min

Lab File: VU031507.D

Acq: 25 Apr 2019 18:29

Instrument :

MSVOA_U

ClientSampleId :

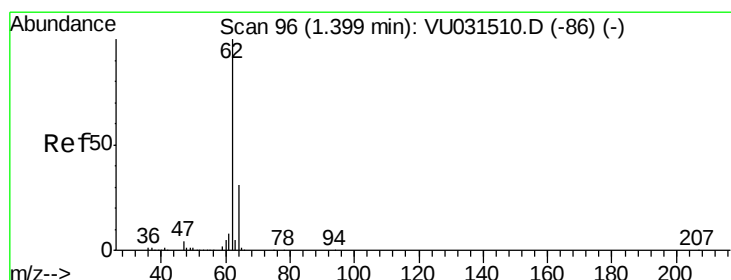
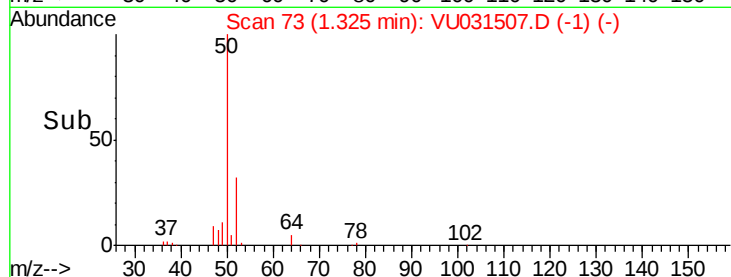
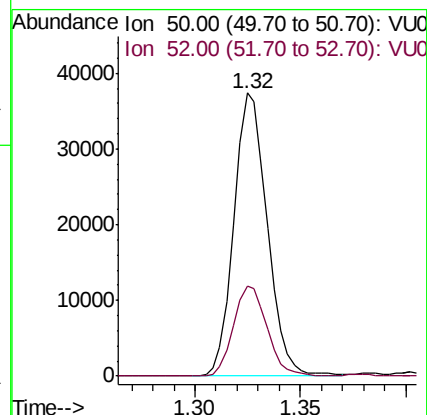
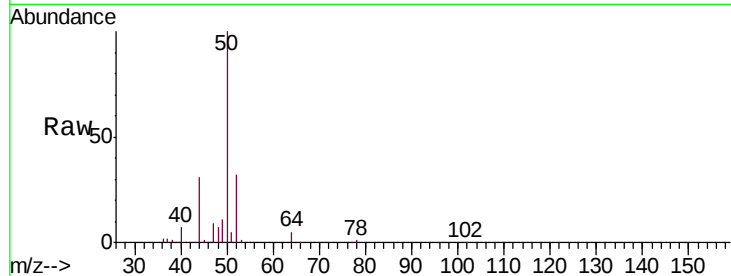
VSTDIC001

Tgt Ion: 50 Resp: 40856

Ion Ratio Lower Upper

50 100

52 31.7 26.1 39.1



#4

Vinyl Chloride

Concen: 1.137 ug/l

RT: 1.40 min Scan# 97

Delta R.T. 0.00 min

Lab File: VU031507.D

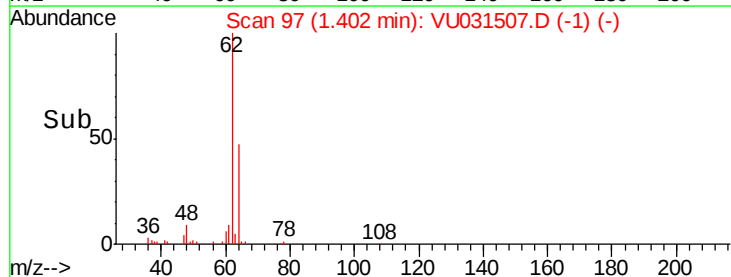
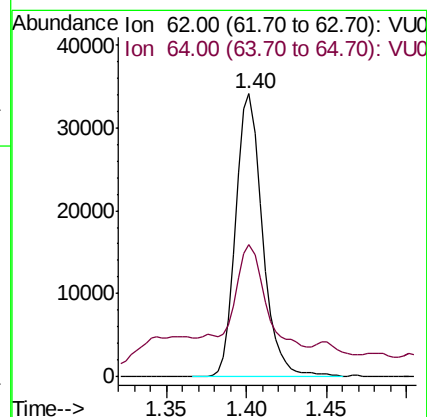
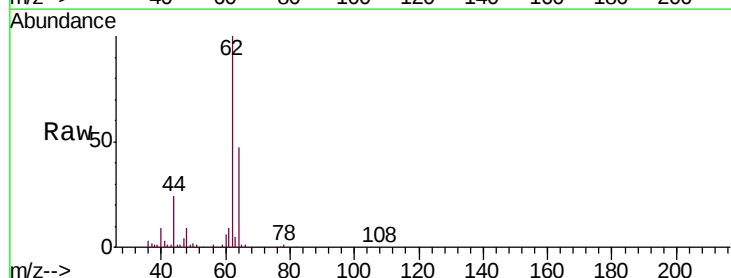
Acq: 25 Apr 2019 18:29

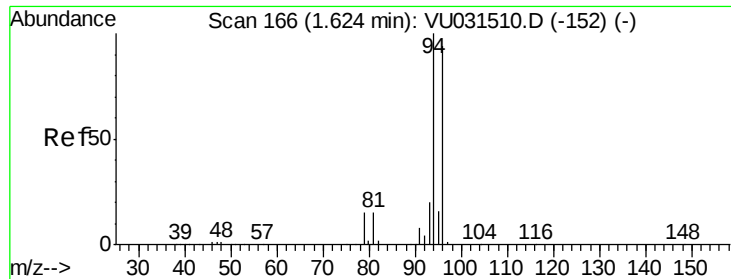
Tgt Ion: 62 Resp: 38520

Ion Ratio Lower Upper

62 100

64 38.1 25.5 38.3





#5

Bromomethane

Concen: 1.112 ug/l

RT: 1.63 min Scan# 168

Delta R.T. 0.01 min

Lab File: VU031507.D

Acq: 25 Apr 2019 18:29

Instrument :

MSVOA_U

ClientSampleId :

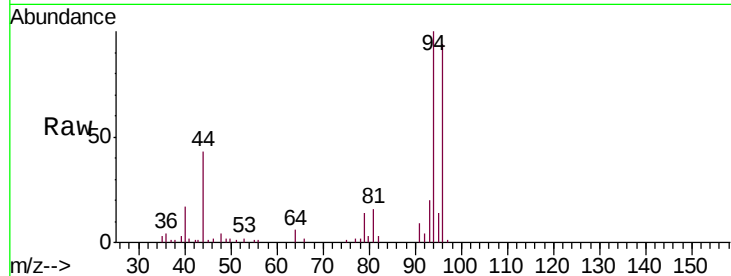
VSTDIC001

Tgt Ion: 94 Resp: 18548

Ion Ratio Lower Upper

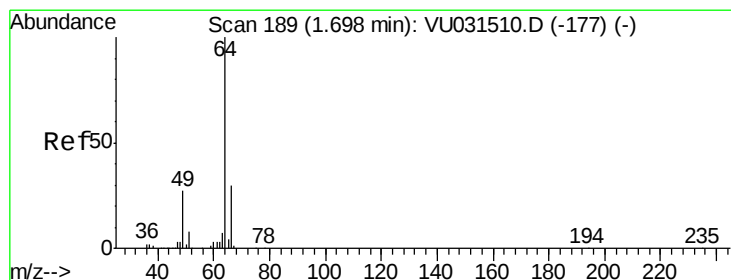
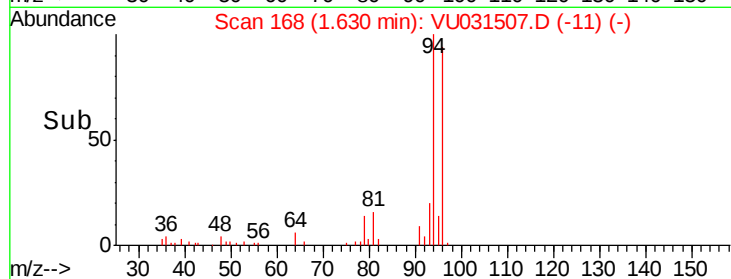
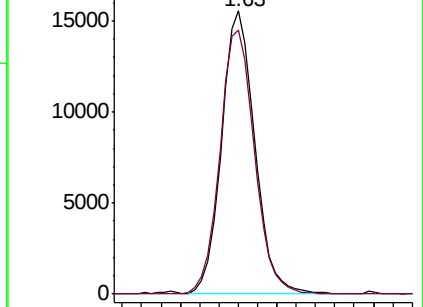
94 100

96 93.5 75.5 113.3



Abundance Ion 94.00 (93.70 to 94.70): VU031510.D (-152) (-)

Ion 96.00 (95.70 to 96.70): VU031510.D (-152) (-)



#6

Chloroethane

Concen: 1.132 ug/l

RT: 1.70 min Scan# 189

Delta R.T. -0.00 min

Lab File: VU031507.D

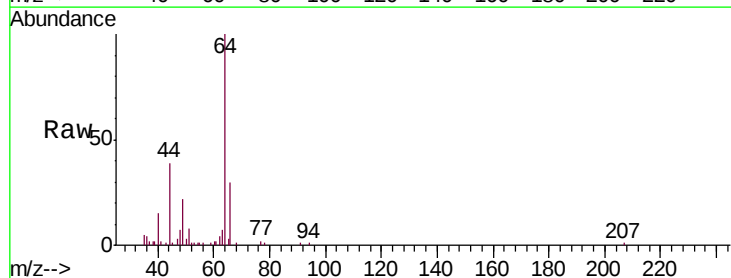
Acq: 25 Apr 2019 18:29

Tgt Ion: 64 Resp: 21712

Ion Ratio Lower Upper

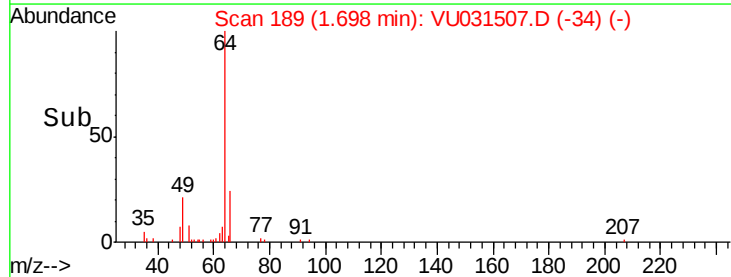
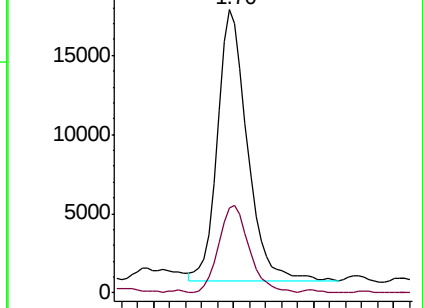
64 100

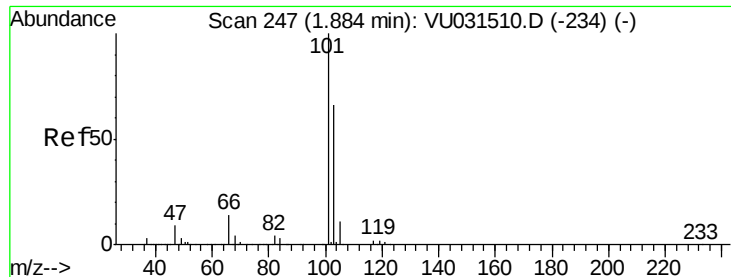
66 31.2 24.3 36.5



Abundance Ion 64.00 (63.70 to 64.70): VU031510.D (-177) (-)

Ion 66.00 (65.70 to 66.70): VU031510.D (-177) (-)





#7

Trichlorofluoromethane

Concen: 1.175 ug/l

RT: 1.89 min Scan# 248

Delta R.T. 0.00 min

Lab File: VU031507.D

Acq: 25 Apr 2019 18:29

Instrument :

MSVOA_U

ClientSampleId :

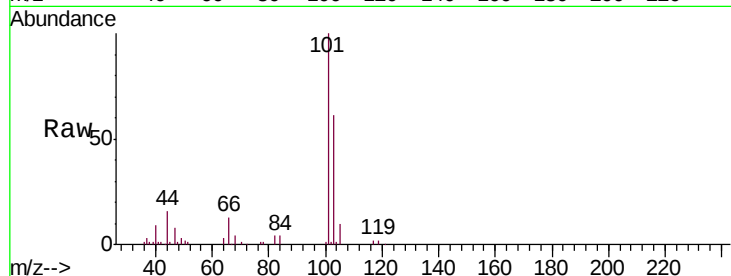
VSTDIC001

Tgt Ion:101 Resp: 45431

Ion Ratio Lower Upper

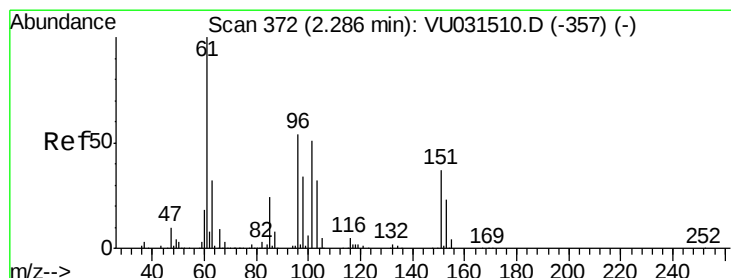
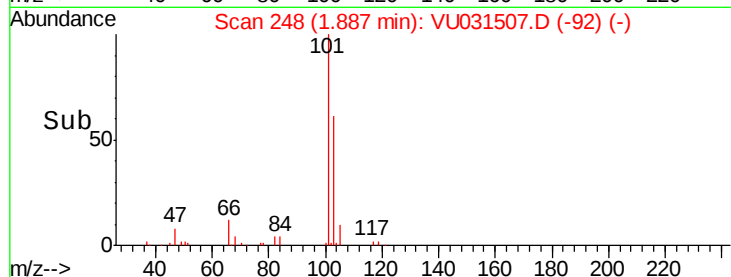
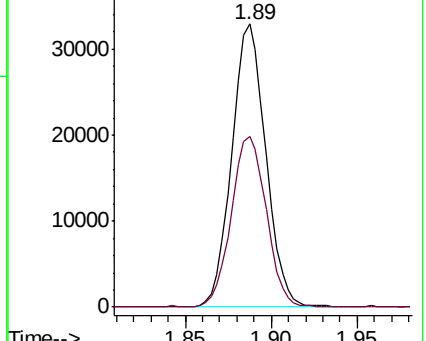
101 100

103 60.5 52.8 79.2



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#8

1,1,2-Trichloro-1,2,2-trifluoroethane

Concen: 1.162 ug/l

RT: 2.29 min Scan# 372

Delta R.T. -0.00 min

Lab File: VU031507.D

Acq: 25 Apr 2019 18:29

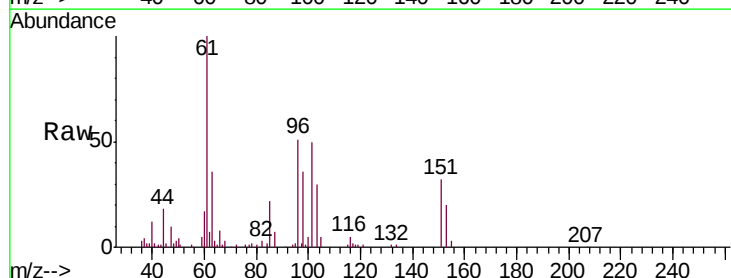
Tgt Ion:101 Resp: 22674

Ion Ratio Lower Upper

101 100

85 45.4 37.8 56.6

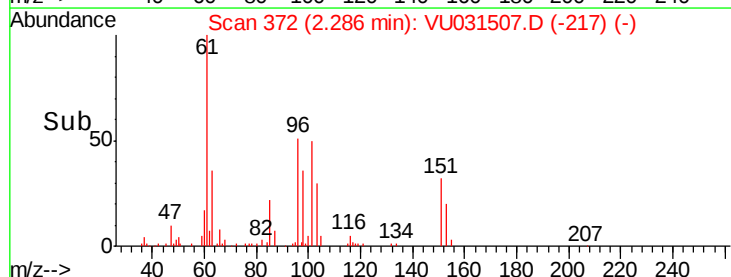
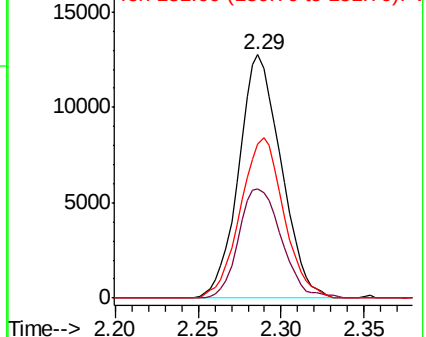
151 67.5 57.4 86.0

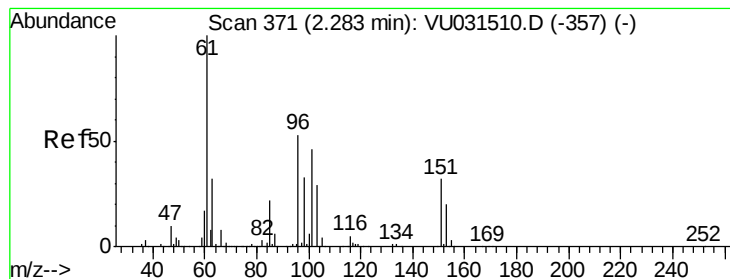


Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VU0

Ion 151.00 (150.70 to 151.70): V





#9

1,1-Dichloroethene

Concen: 1.097 ug/l

RT: 2.28 min Scan# 371

Delta R.T. -0.00 min

Lab File: VU031507.D

Acq: 25 Apr 2019 18:29

Instrument :

MSVOA_U

ClientSampleId :

VSTDIC001

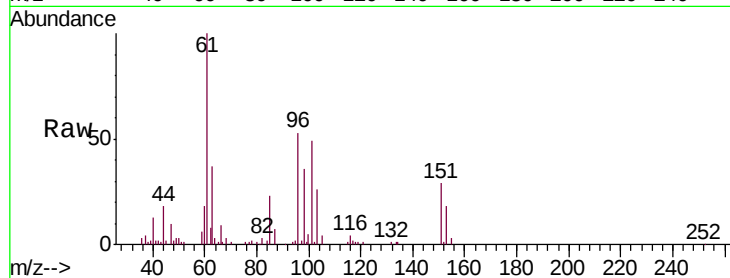
Tgt Ion: 96 Resp: 21253

Ion Ratio Lower Upper

96 100

61 189.6 0.0 566.7

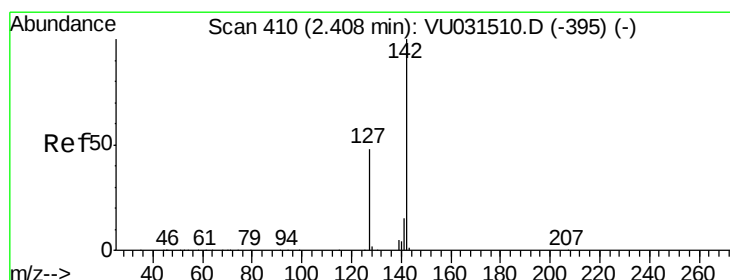
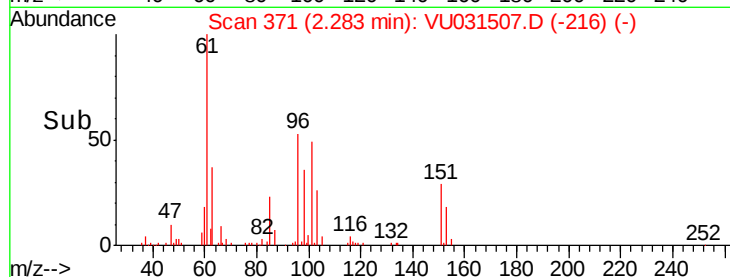
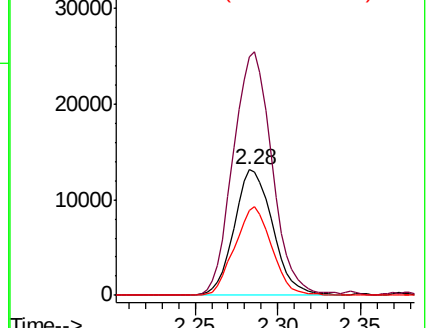
98 68.1 0.0 126.4



Abundance Ion 96.00 (95.70 to 96.70): VU031510.D (-357) (-)

Ion 61.00 (60.70 to 61.70): VU031510.D (-357) (-)

Ion 98.00 (97.70 to 98.70): VU031510.D (-357) (-)



#10

Iodomethane

Concen: 0.988 ug/l

RT: 2.41 min Scan# 411

Delta R.T. 0.00 min

Lab File: VU031507.D

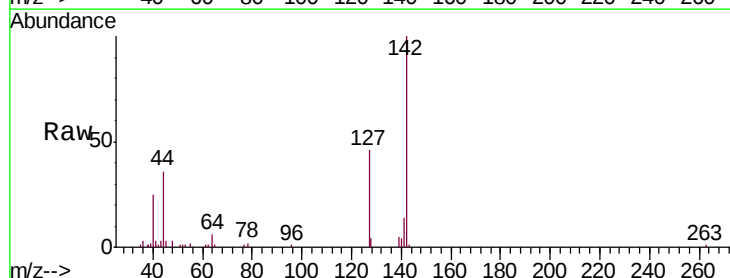
Acq: 25 Apr 2019 18:29

Tgt Ion: 142 Resp: 20731

Ion Ratio Lower Upper

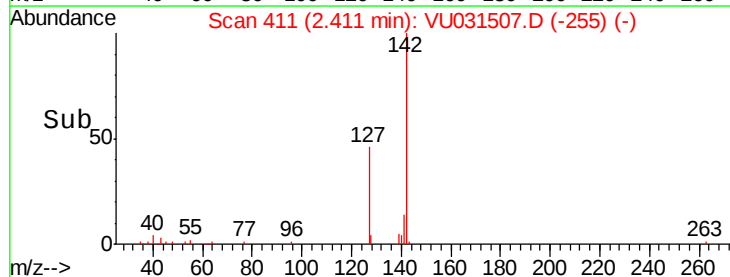
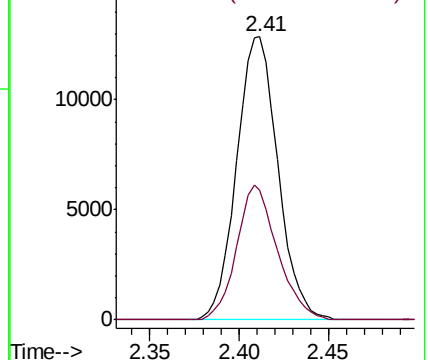
142 100

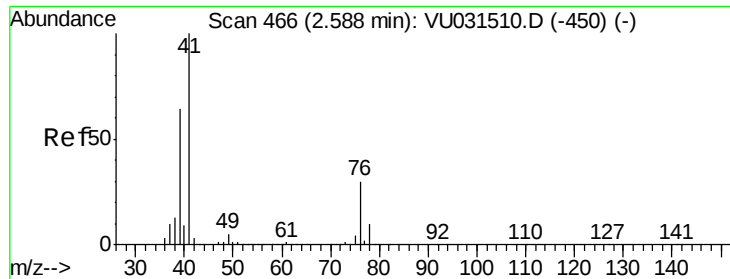
127 46.8 38.2 57.2



Abundance Ion 142.00 (141.70 to 142.70): VU031510.D (-395) (-)

Ion 127.00 (126.70 to 127.70): VU031510.D (-395) (-)

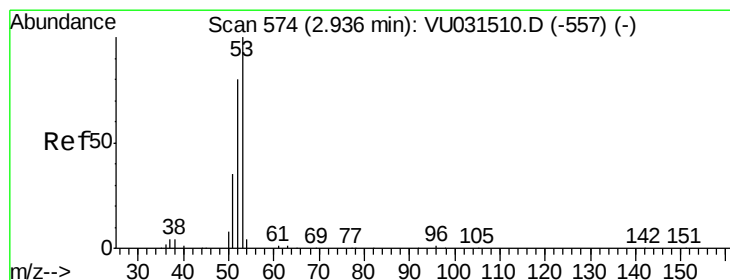
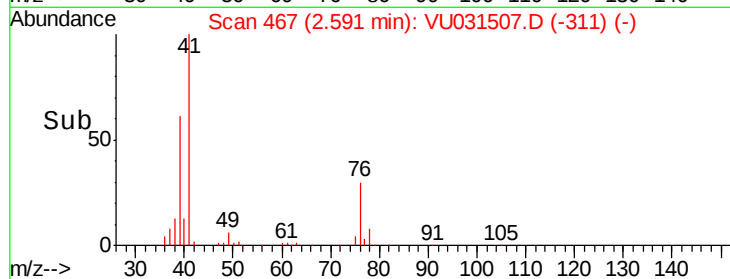
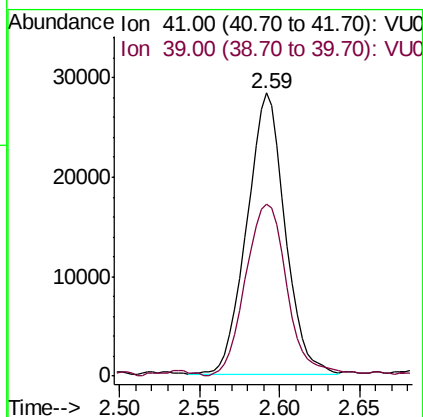
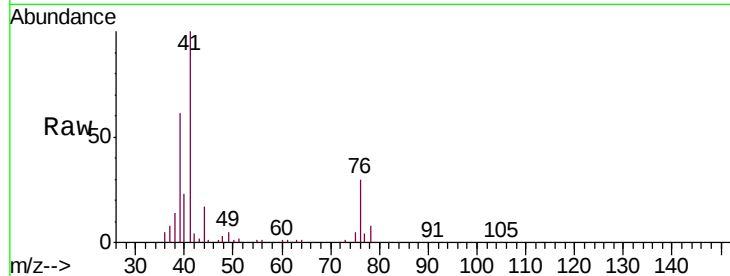




#11
 Allyl Chloride
 Concen: 1.105 ug/l
 RT: 2.59 min Scan# 467
 Delta R.T. 0.00 min
 Lab File: VU031507.D
 Acq: 25 Apr 2019 18:29

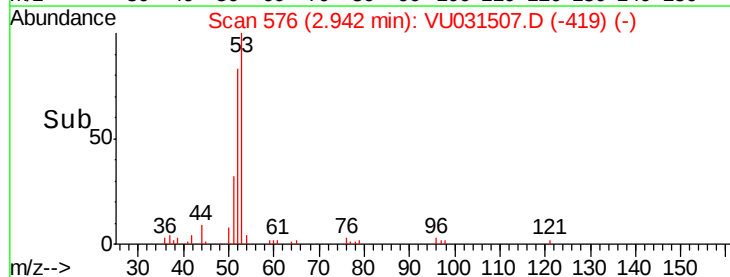
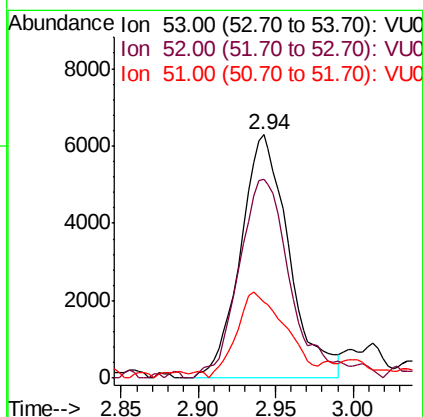
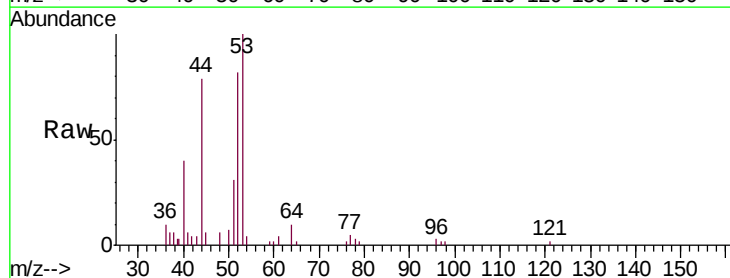
Instrument :
 MSVOA_U
 ClientSampleId :
 VSTDIC001

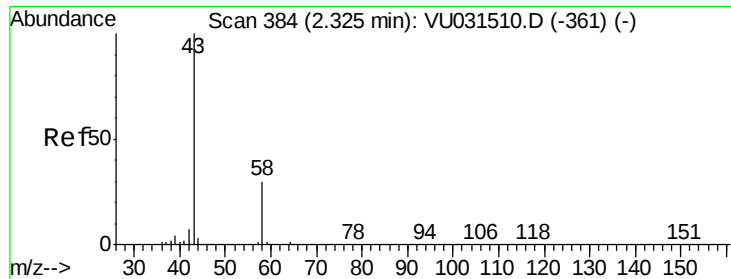
Tgt Ion: 41 Resp: 46161
 Ion Ratio Lower Upper
 41 100
 39 67.5 51.4 77.0



#12
 Acrylonitrile
 Concen: 2.362 ug/l
 RT: 2.94 min Scan# 576
 Delta R.T. 0.01 min
 Lab File: VU031507.D
 Acq: 25 Apr 2019 18:29

Tgt Ion: 53 Resp: 13696
 Ion Ratio Lower Upper
 53 100
 52 86.6 69.4 104.0
 51 35.9 27.5 41.3





#13

Acetone

Concen: 5.814 ug/l

RT: 2.33 min Scan# 386

Delta R.T. 0.01 min

Lab File: VU031507.D

Acq: 25 Apr 2019 18:29

Instrument :

MSVOA_U

ClientSampleId :

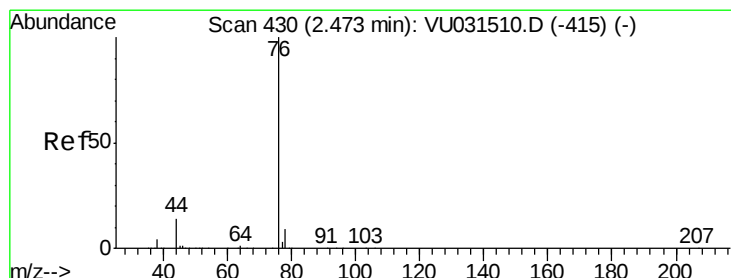
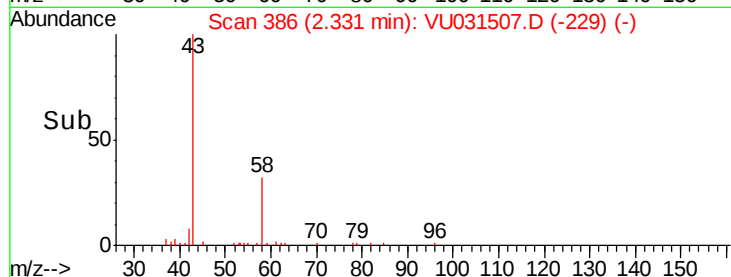
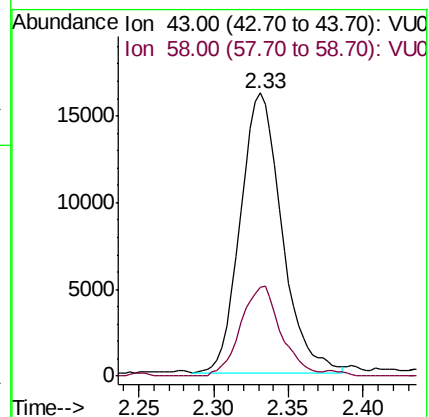
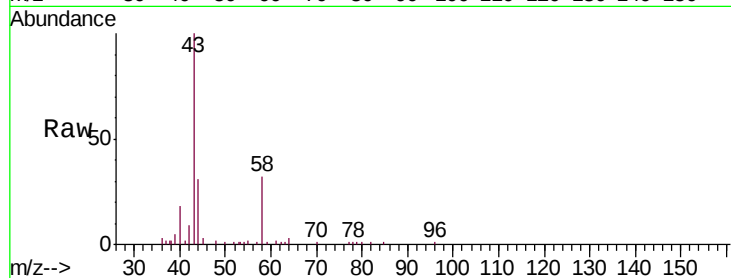
VSTDIC001

Tgt Ion: 43 Resp: 31201

Ion Ratio Lower Upper

43 100

58 32.0 24.1 36.1



#14

Carbon Disulfide

Concen: 1.114 ug/l

RT: 2.48 min Scan# 431

Delta R.T. 0.00 min

Lab File: VU031507.D

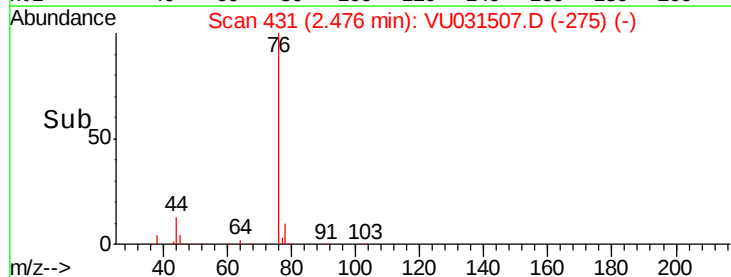
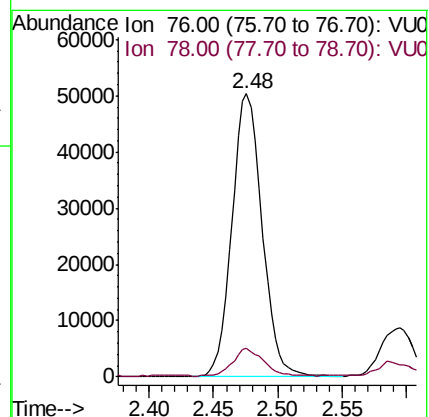
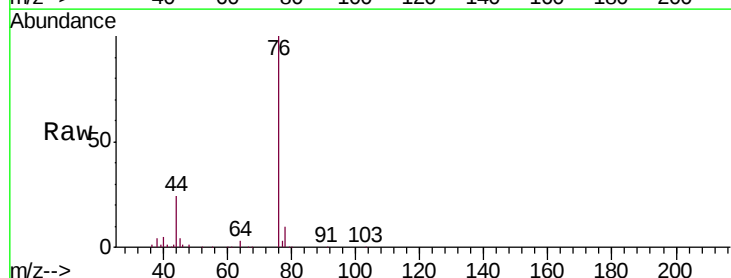
Acq: 25 Apr 2019 18:29

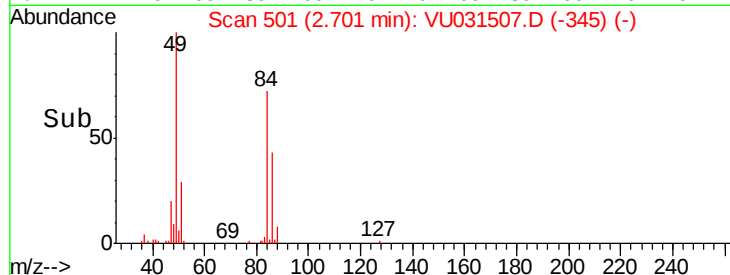
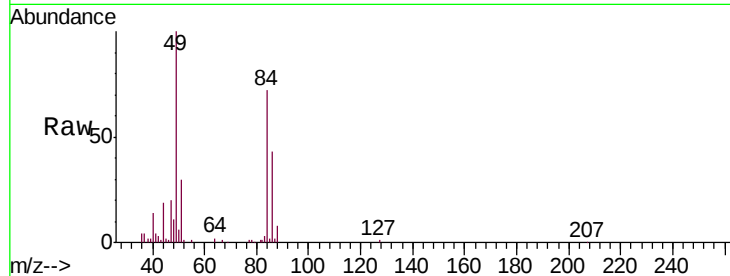
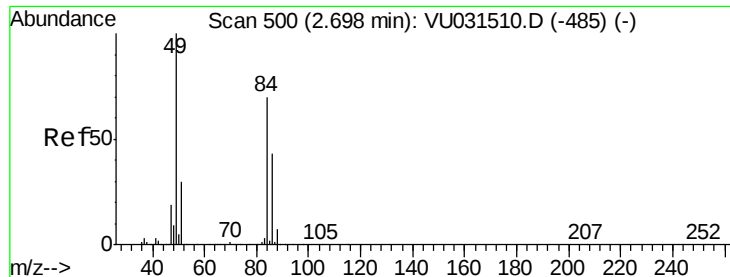
Tgt Ion: 76 Resp: 82022

Ion Ratio Lower Upper

76 100

78 9.8 7.2 10.8

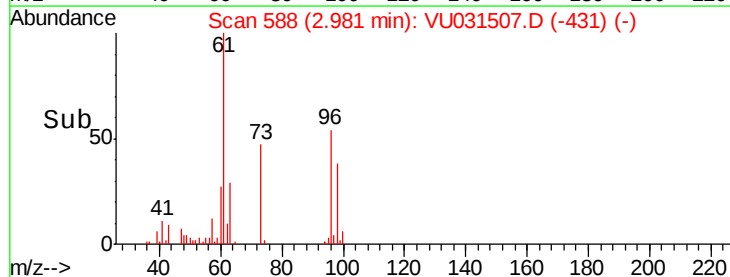
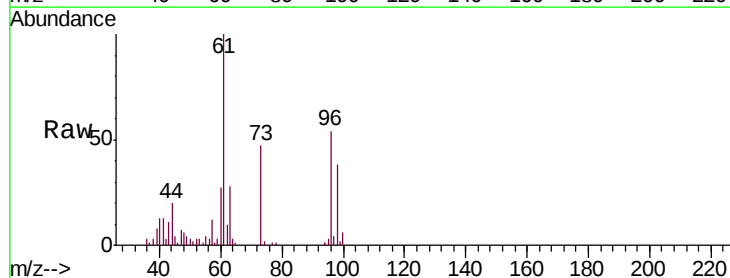
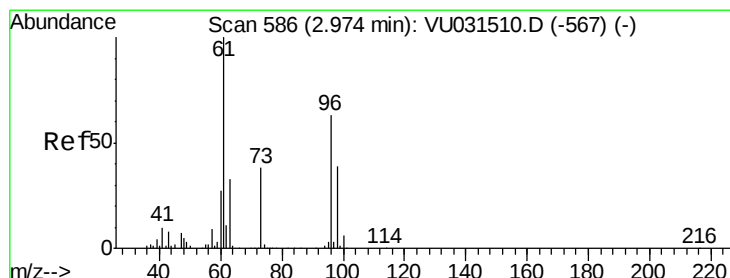
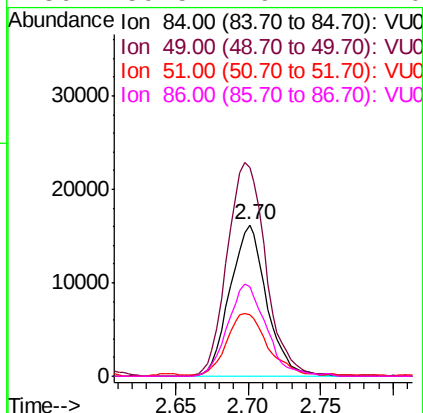




#15
Methylene Chloride
Concen: 1.151 ug/l
RT: 2.70 min Scan# 501
Delta R.T. 0.00 min
Lab File: VU031507.D
Acq: 25 Apr 2019 18:29

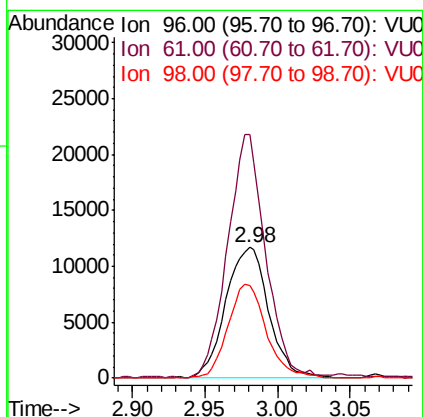
Instrument :
MSVOA_U
ClientSampleId :
VSTDIC001

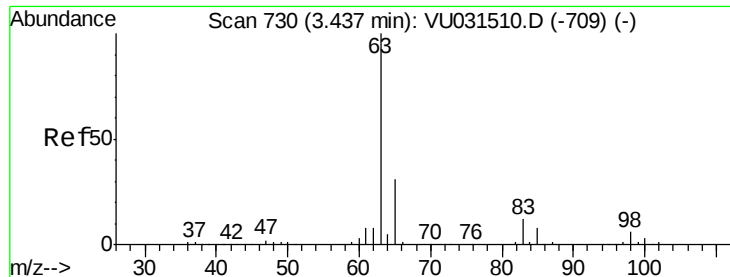
Tgt Ion: 84 Resp: 28334
Ion Ratio Lower Upper
84 100
49 138.0 113.6 170.4
51 40.3 0.0 85.6
86 59.5 49.4 74.0



#16
trans-1,2-Dichloroethene
Concen: 1.105 ug/l
RT: 2.98 min Scan# 588
Delta R.T. 0.01 min
Lab File: VU031507.D
Acq: 25 Apr 2019 18:29

Tgt Ion: 96 Resp: 24034
Ion Ratio Lower Upper
96 100
61 186.1 127.2 190.8
98 71.2 49.4 74.0

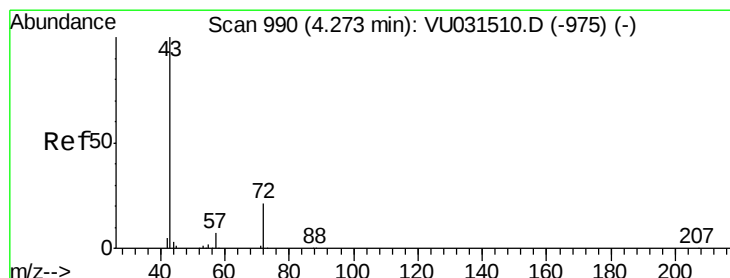
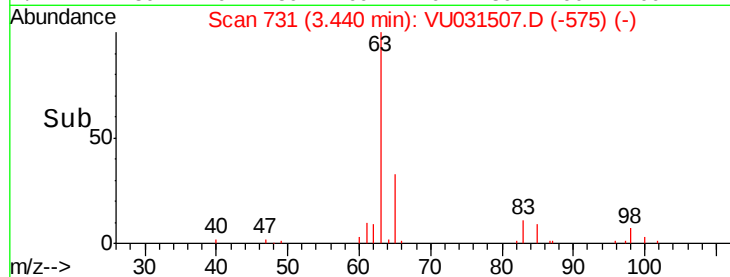
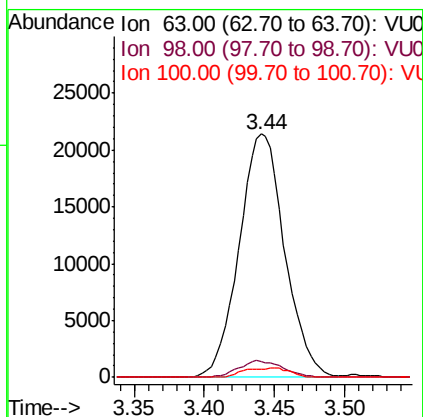
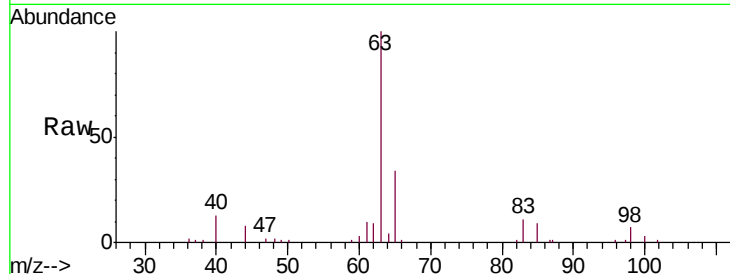




#17
 1,1-Dichloroethane
 Concen: 1.090 ug/l
 RT: 3.44 min Scan# 731
 Delta R.T. 0.00 min
 Lab File: VU031507.D
 Acq: 25 Apr 2019 18:29

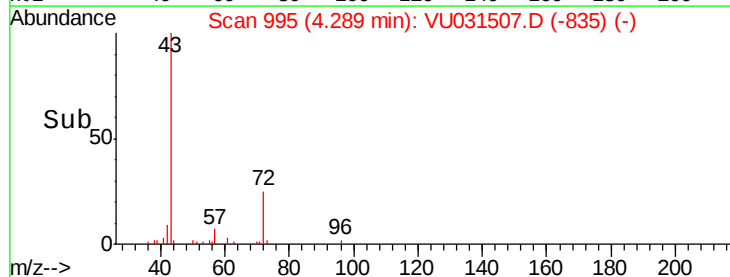
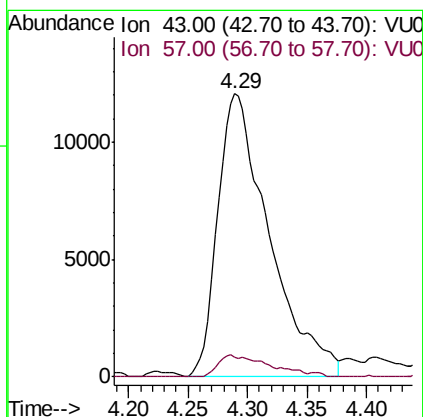
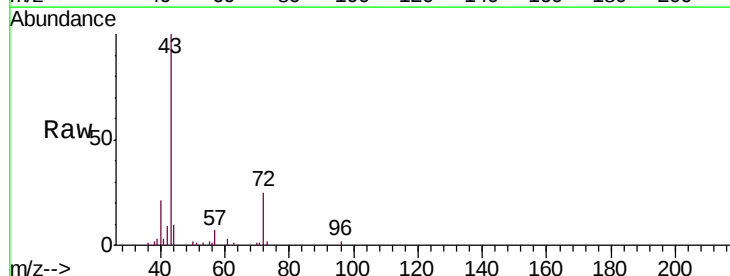
Instrument :
 MSVOA_U
 ClientSampleId :
 VSTDIC001

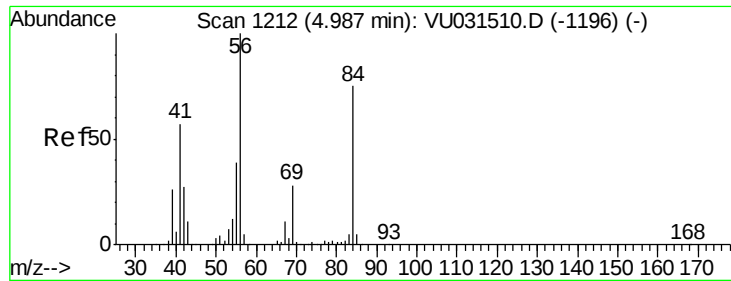
Tgt Ion: 63 Resp: 48270
 Ion Ratio Lower Upper
 63 100
 98 6.6 3.0 9.2
 100 3.2 1.7 5.1



#18
 2-Butanone
 Concen: 5.251 ug/l
 RT: 4.29 min Scan# 995
 Delta R.T. 0.02 min
 Lab File: VU031507.D
 Acq: 25 Apr 2019 18:29

Tgt Ion: 43 Resp: 36312
 Ion Ratio Lower Upper
 43 100
 57 7.0 0.0 14.2

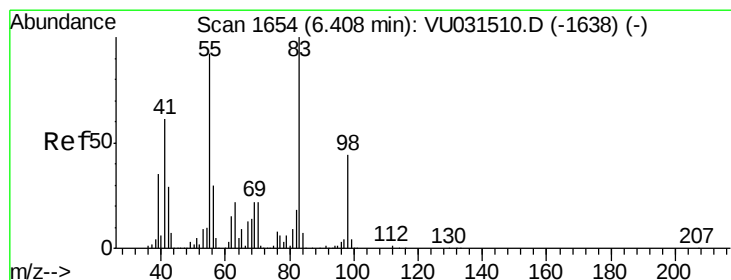
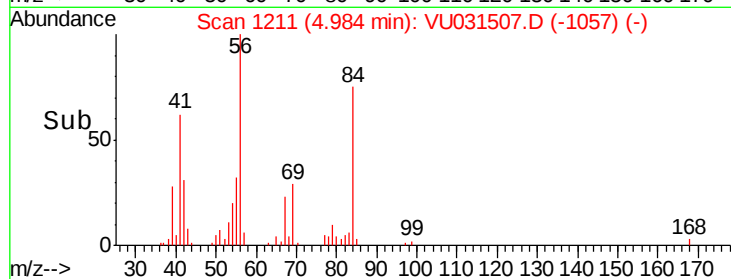
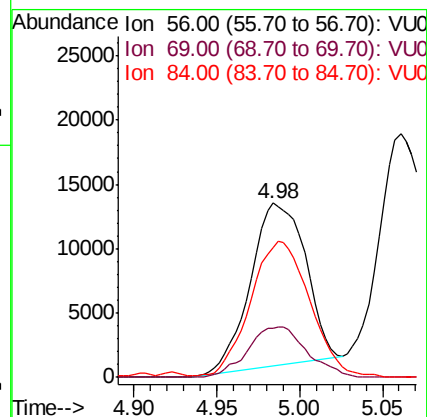
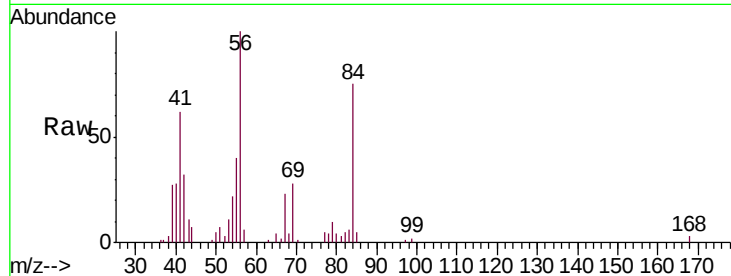




#19
Cyclohexane
Concen: 0.859 ug/l
RT: 4.98 min Scan# 1211
Delta R.T. -0.00 min
Lab File: VU031507.D
Acq: 25 Apr 2019 18:29

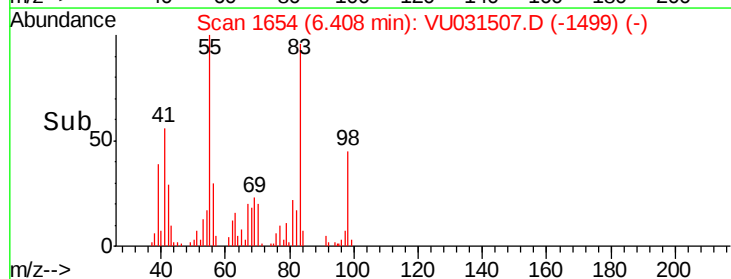
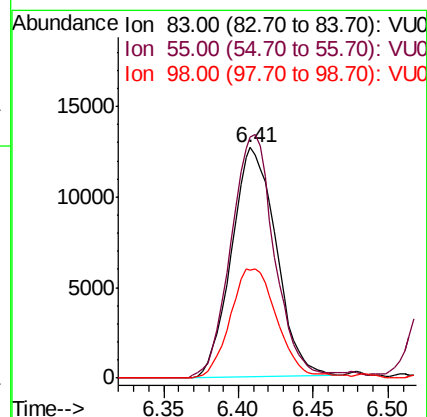
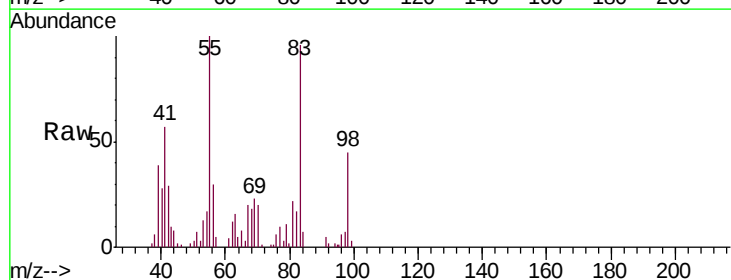
Instrument :
MSVOA_U
ClientSampleId :
VSTDIC001

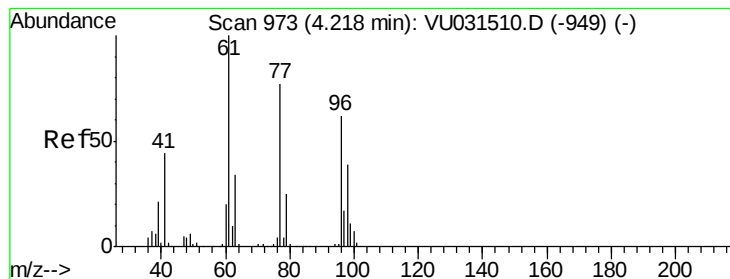
Tgt Ion: 56 Resp: 29358
Ion Ratio Lower Upper
56 100
69 33.1 22.4 33.6
84 88.8 59.0 88.4#



#20
Methylcyclohexane
Concen: 0.957 ug/l
RT: 6.41 min Scan# 1654
Delta R.T. -0.00 min
Lab File: VU031507.D
Acq: 25 Apr 2019 18:29

Tgt Ion: 83 Resp: 26334
Ion Ratio Lower Upper
83 100
55 101.0 73.7 110.5
98 48.8 35.2 52.8





#21

2,2-Dichloropropane

Concen: 1.118 ug/l

RT: 4.22 min Scan# 975

Delta R.T. 0.01 min

Lab File: VU031507.D

Acq: 25 Apr 2019 18:29

Instrument :

MSVOA_U

ClientSampleId :

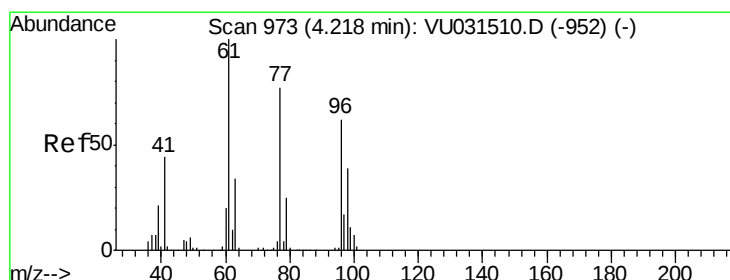
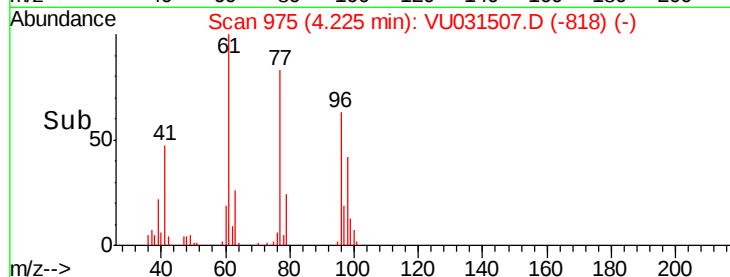
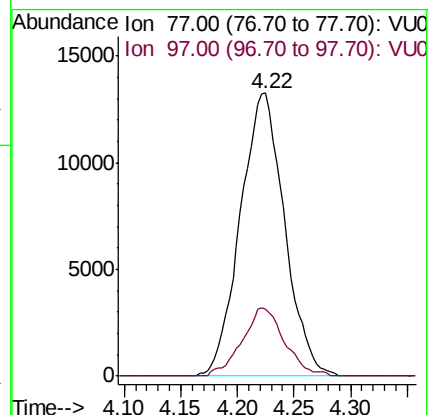
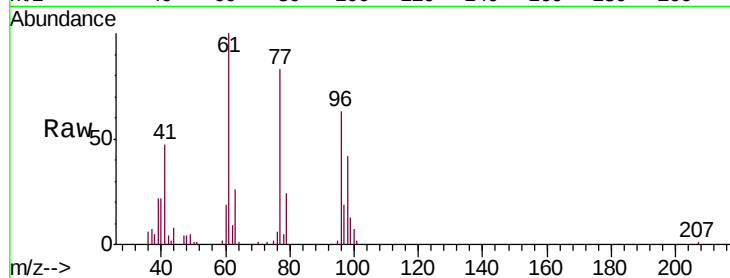
VSTDIC001

Tgt Ion: 77 Resp: 36071

Ion Ratio Lower Upper

77 100

97 23.1 17.5 26.3



#22

cis-1,2-Dichloroethene

Concen: 1.081 ug/l

RT: 4.22 min Scan# 975

Delta R.T. 0.01 min

Lab File: VU031507.D

Acq: 25 Apr 2019 18:29

Tgt Ion: 96 Resp: 24497

Ion Ratio Lower Upper

96 100

61 159.0 0.0 408.8

98 65.0 31.1 93.3

